

FIG. 1

CHARGING SYSTEM OVERVIEW OF A
STORAGE SYSTEM

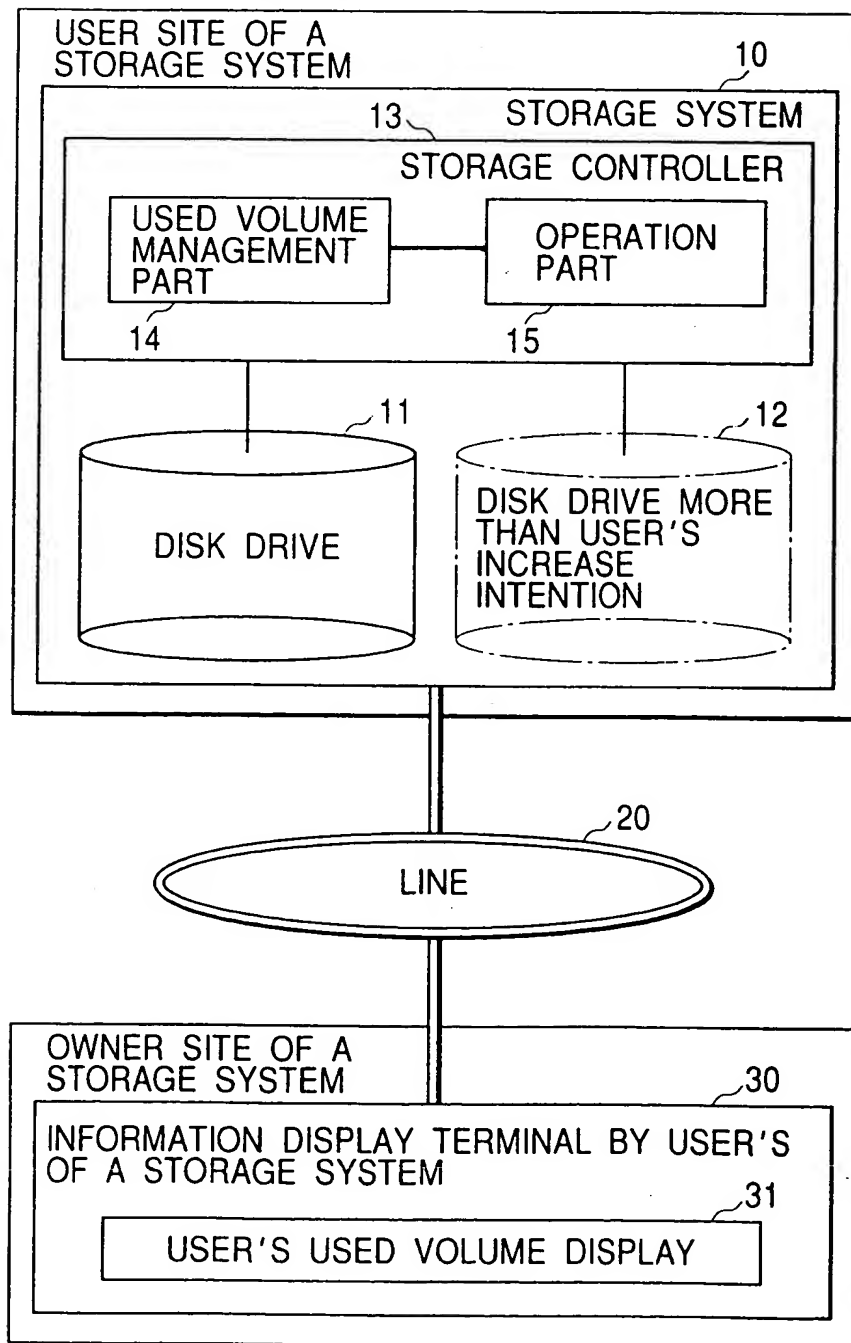
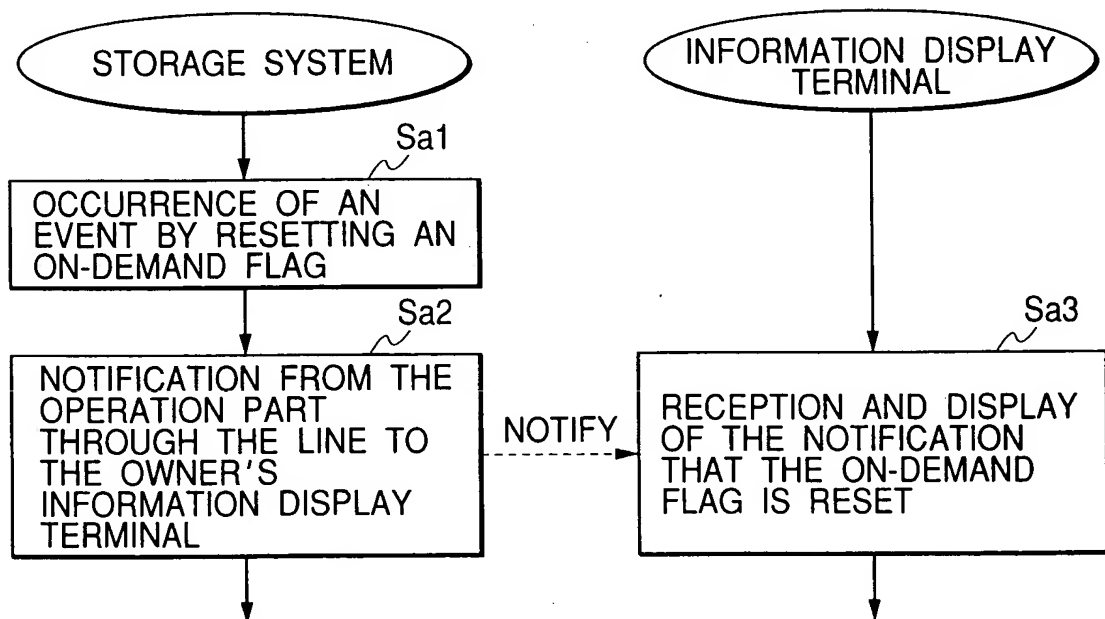


FIG. 2MANAGEMENT TABLE OF A DISK CONTROL
UNIT OF A STORAGE SYSTEM

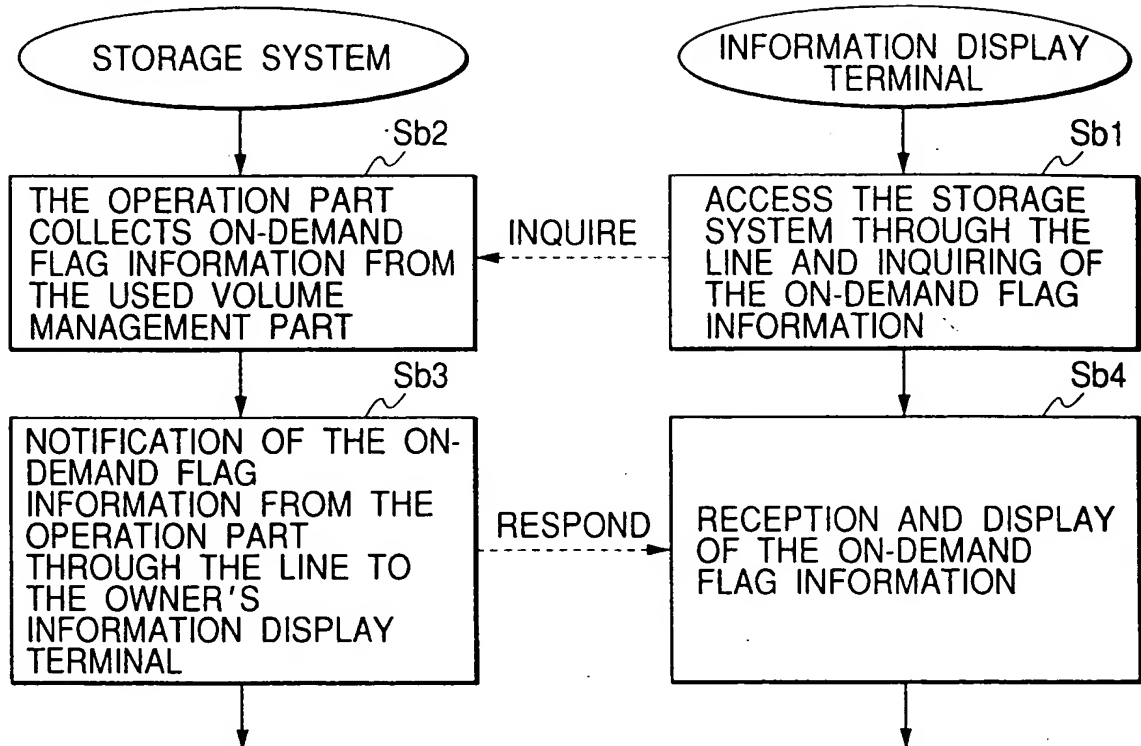
ON-DEMAND VOLUME	ON-DEMAND FLAG ATTRIBUTE (SET/RESET)	RESET TIME (DATE AND TIME)
xxGB	RESET	yymmddhhmmss
xxGB	RESET	yymmddhhmmss
xxGB	SET	
xxGB	SET	
⋮	⋮	⋮
xxGB	SET	

FIG. 3INFORMATION FLOW OF A STORAGE
SYSTEM AND AN INFORMATION
DISPLAY TERMINAL
AT RESET OF AN ON-DEMAND FLAG

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FIG. 4

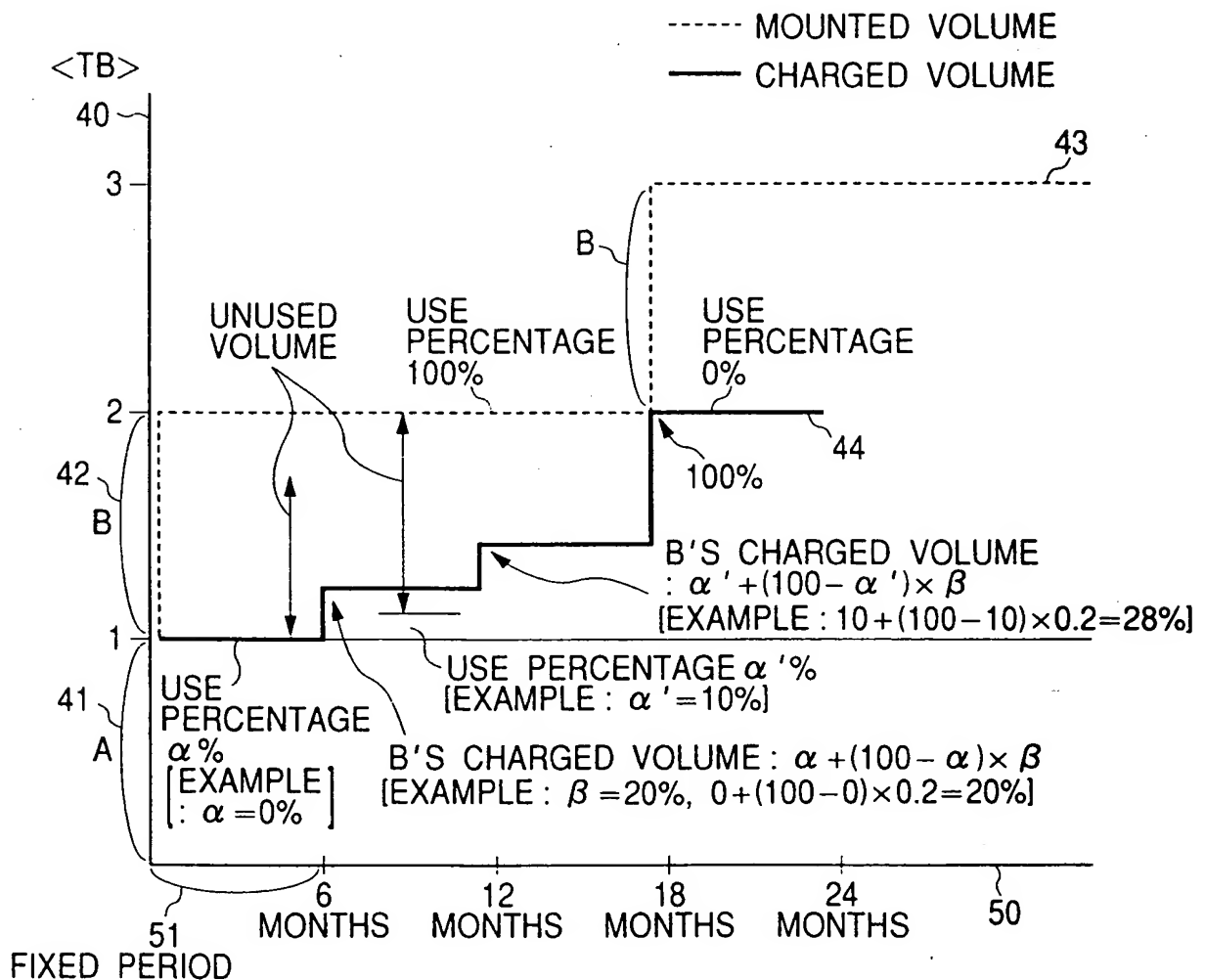
INFORMATION FLOW OF A STORAGE
SYSTEM AND AN INFORMATION
DISPLAY TERMINAL
AT CONFIRMATION (INQUIRING) OF
INFORMATION

**FIG. 5**

EXAMPLE OF AN INFORMATION MANAGEMENT TABLE BY
USERS OF A STORAGE SYSTEM

	USER A	USER B	USER C
USER ID	xxxxxxx	xxxxxxx	xxxxxxx
USED VOLUME	xxGB	xxGB	xxGB
ADDED VOLUME	xxGB	xxGB	xxGB
USE PERIOD	x YEAR/x MONTH/x DAY TO x YEAR/x MONTH/x DAY	x YEAR/x MONTH/x DAY TO x YEAR/x MONTH/x DAY	x YEAR/x MONTH/x DAY TO x YEAR/x MONTH/x DAY
USE STARTING DATE	x YEAR/x MONTH/x DAY	x YEAR/x MONTH/x DAY	x YEAR/x MONTH/x DAY
ALLOCATED VOLUME	VOL. 1, VOL. 2	VOL. 3, VOL. 4	VOL. 5, VOL. 6
USE UNIT COST	x¥/MONTH	x¥/MONTH	x¥/MONTH

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FIG. 6CHARGED VOLUME TRANSITION DIAGRAM TO THE
DISK VOLUME OF A STORAGE SYSTEM

DECISION OF A "USED VOLUME" AND AN "UNUSED VOLUME"
AFTER 6 MONTHS ELAPSE
A TOTAL CHARGED VOLUME FOR THE NEXT 6 MONTHS IS
A+B USED VOLUME+
(B'S UNUSED VOLUME \times CHARGING PERCENTAGE $\beta\%$)

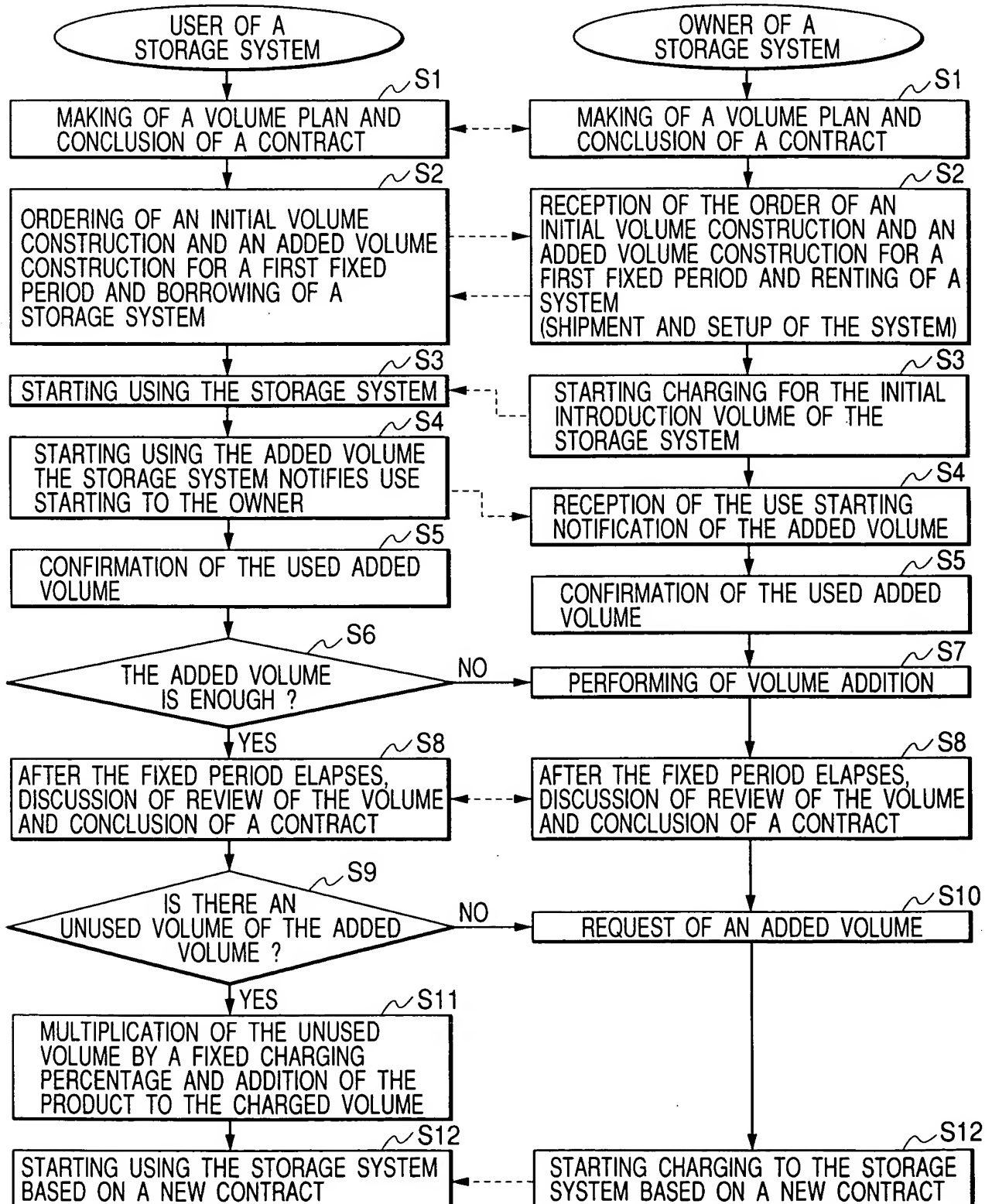
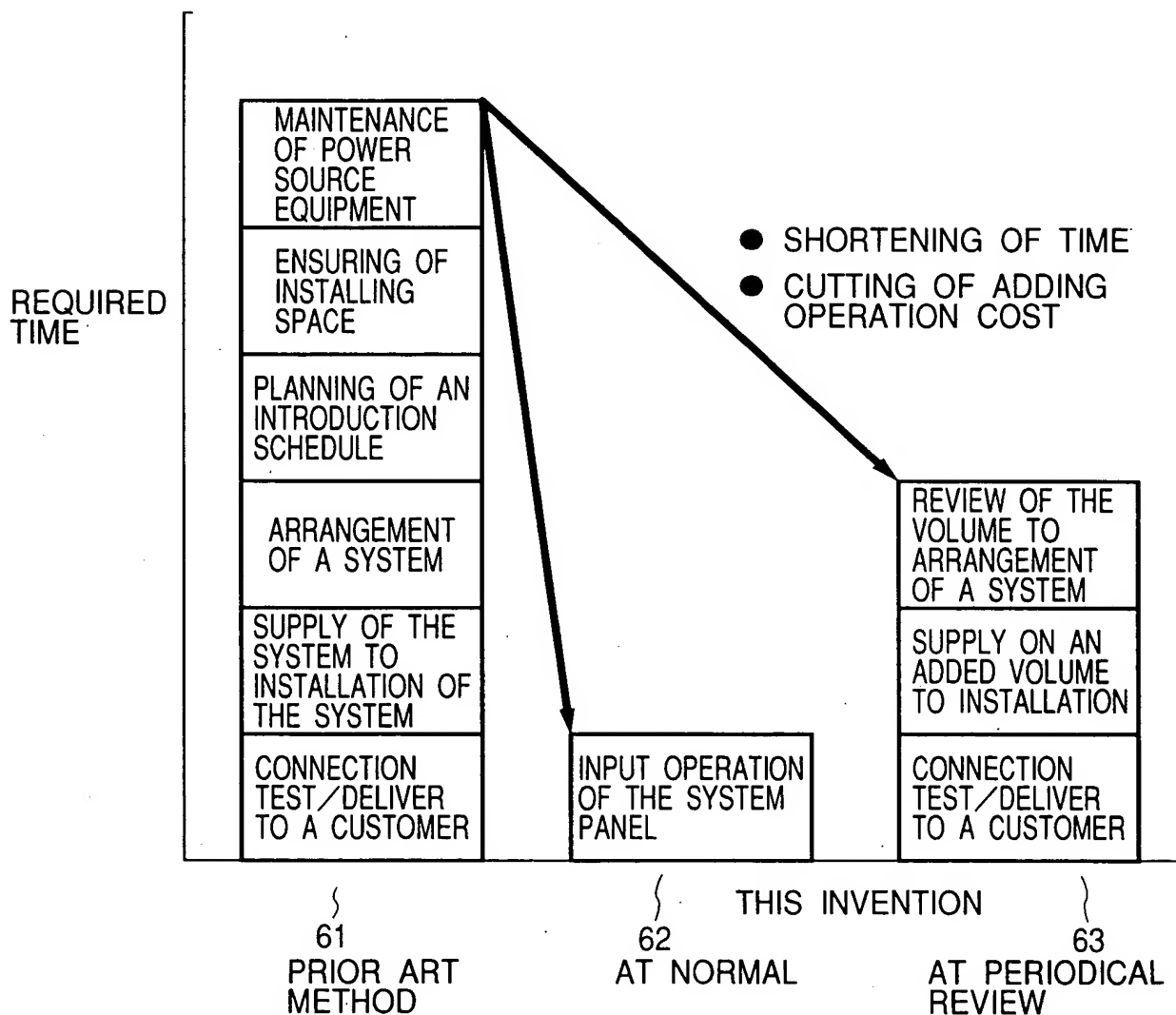
FIG. 7FLOWCHART OF A CHARGING METHOD TO THE DISK VOLUME
OF A STORAGE SYSTEM

FIG. 8

TIME REQUIRED FOR VOLUME ADDITION TO A
STORAGE SYSTEM



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PRIOR ART

FIG. 9

INITIAL INVESTED VOLUMES TO A STORAGE SYSTEM

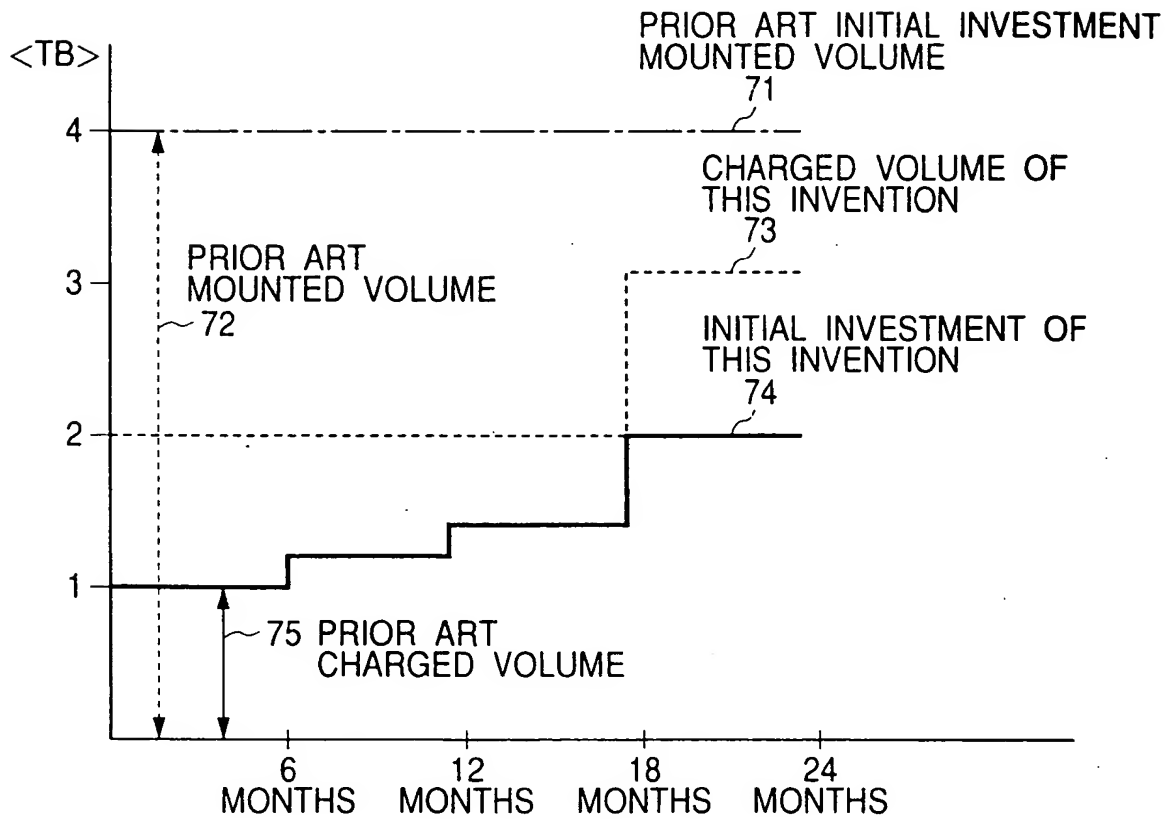


FIG. 10

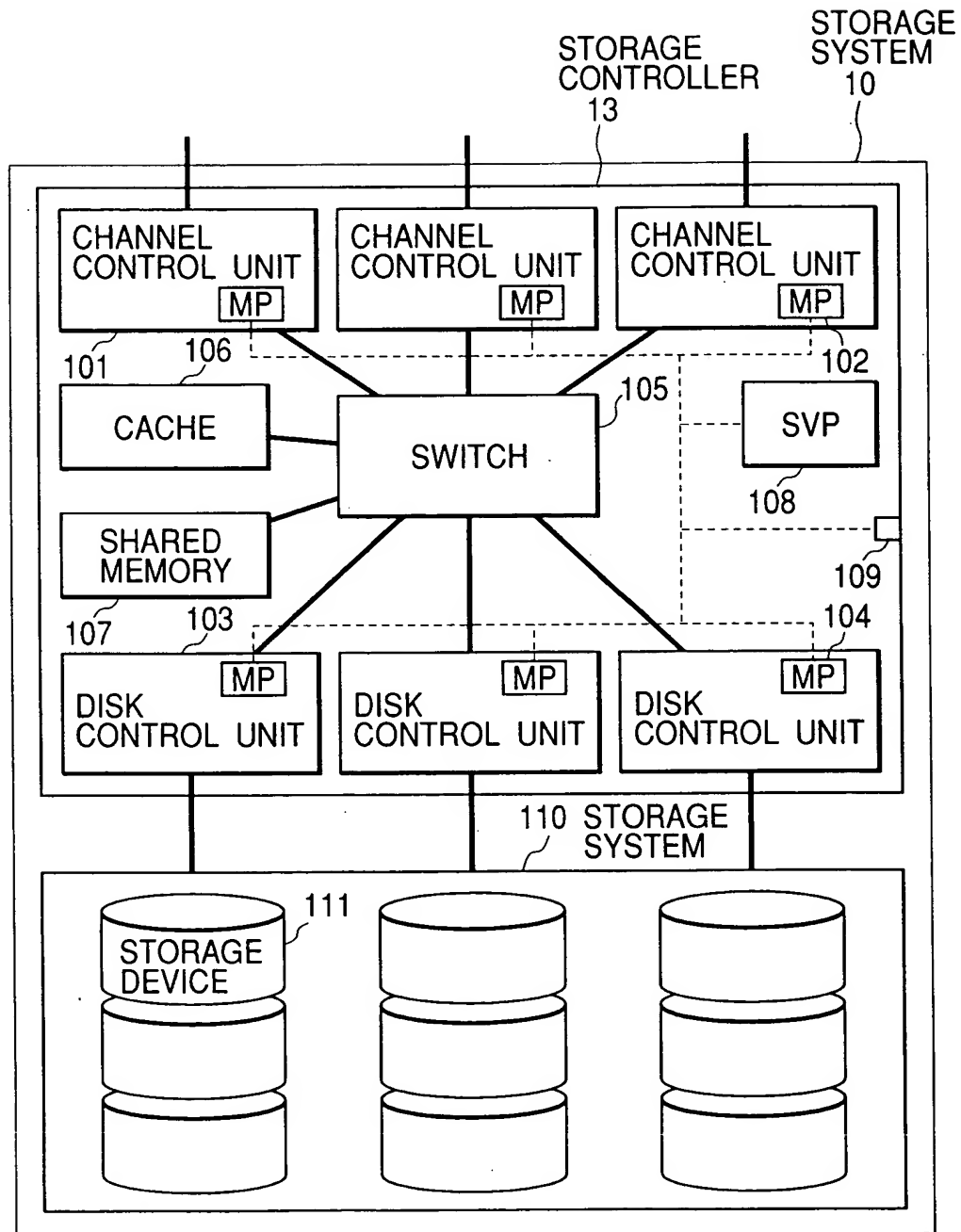


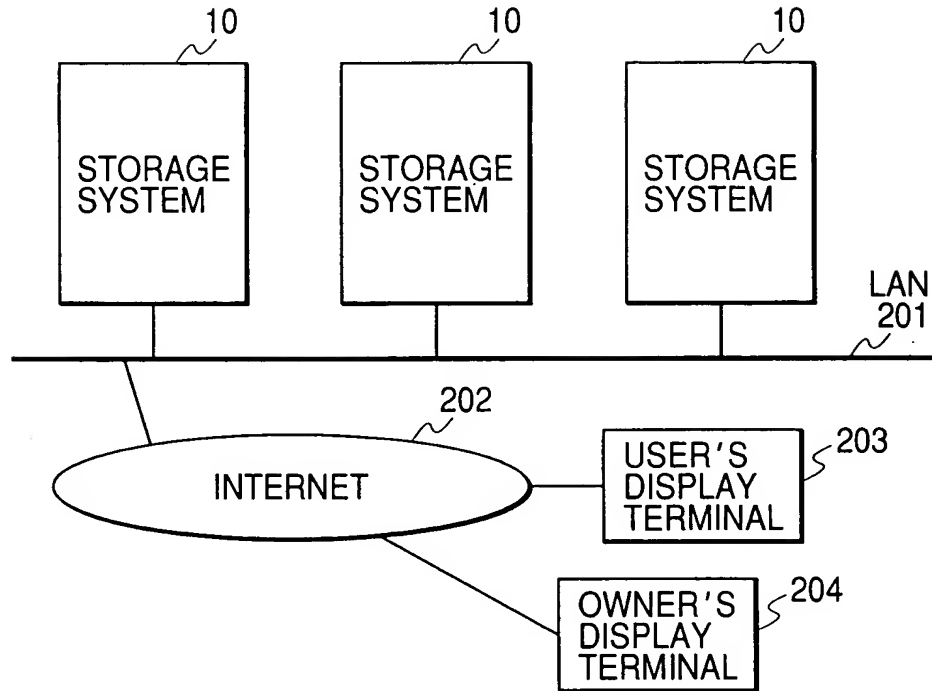
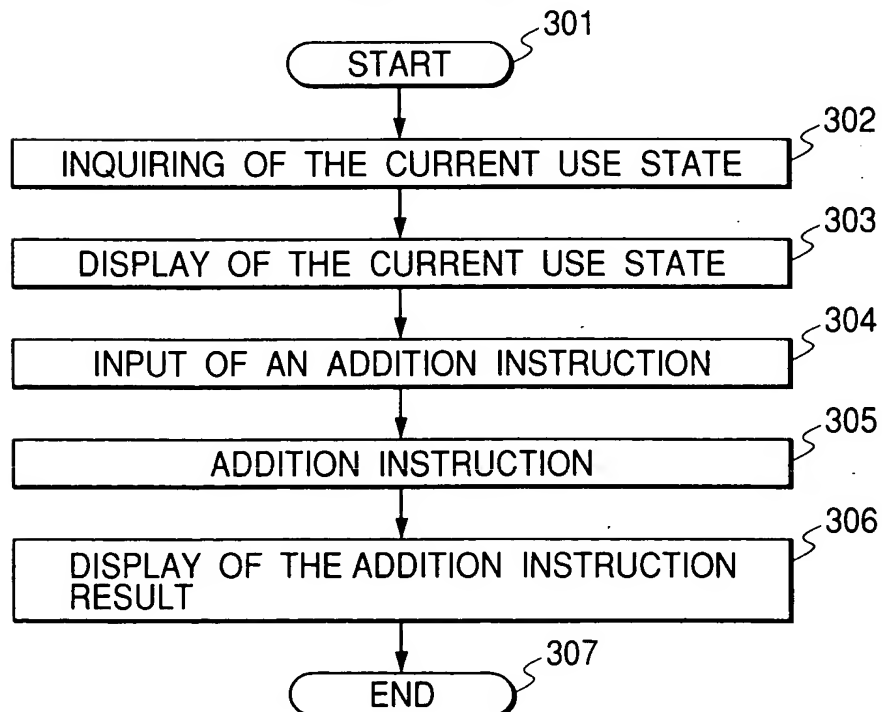
FIG. 11**FIG. 12**

FIG. 13

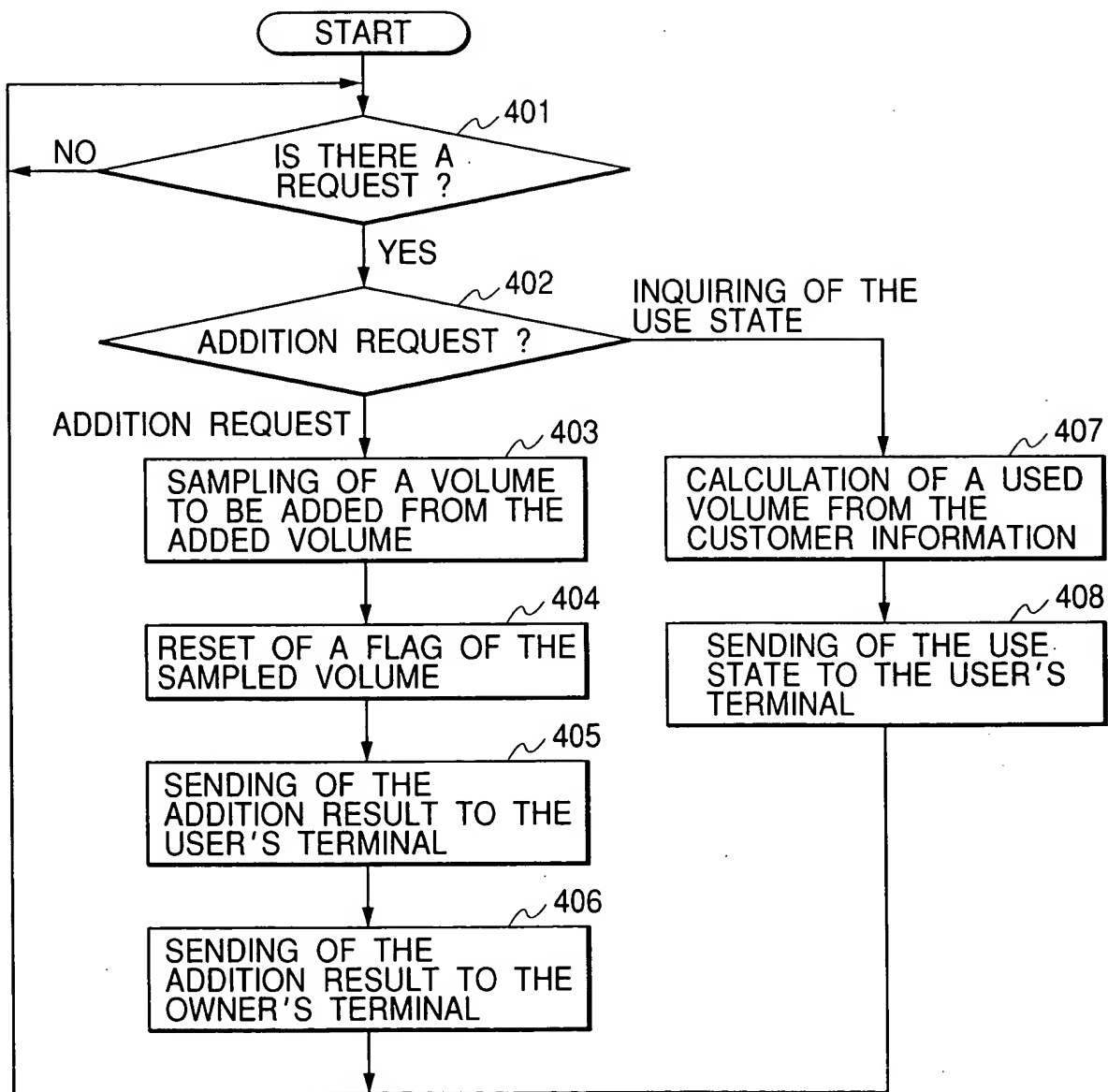
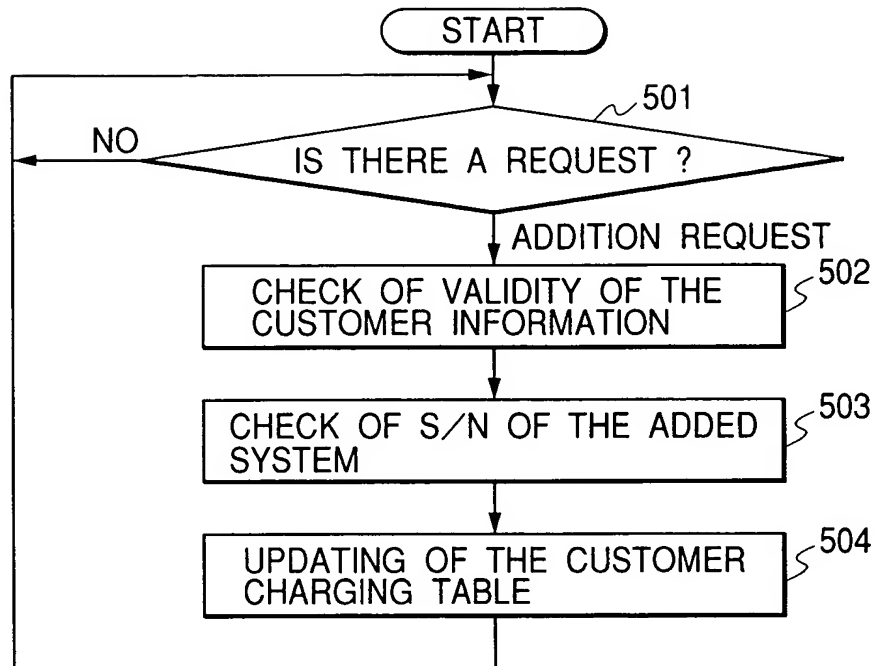


FIG. 14**FIG. 15**

STORAGE SYSTEM USED VOLUME ADDITION ASSISTANCE SCREEN □□×		
STORAGE SYSTEM USED VOLUME ADDITION ASSISTANCE SCREEN		
INPUT THE FOLLOWING TO SELECT THE BUTTON		
PRODUCT TYPE NAME	<input type="text" value="STORAGE-TYPE A"/>	<input type="button" value="INQUIRE ..."/>
PRODUCTION NUMBER	<input type="text" value="34QS1234567890"/>	
USER SUPPORT ID	<input type="text" value="34QS1625345"/>	
		<input type="button" value="END"/>

FIG. 16

STORAGE SYSTEM USED VOLUME ADDITION ASSISTANCE SCREEN □□□			
STORAGE SYSTEM USED VOLUME ADDITION ASSISTANCE SCREEN			
USE STATE	PRODUCT TYPE NAME PRODUCTION NUMBER USER SUPPORT ID	STORAGE-TYPE A 34QS1234567890 34QS1625345	ADD ...
		701	703
BASIC VOLUME		100GB	
BASIC VOLUME UNIT COST		¥100/MB	
EXCESSIVE USED VOLUME		30GB	
EXCESSIVE USE UNIT COST		¥250/MB	
UNUSED VOLUME		70GB	
UNUSED UNIT COST		¥50/MB	
CONTRACT PERIOD		2000.01.01—2002.12.31	702
MOUNTED VOLUME		5000GB	
			END

FIG. 17

STORAGE SYSTEM USED VOLUME ADDITION ASSISTANCE SCREEN □□□			
STORAGE SYSTEM USED VOLUME ADDITION ASSISTANCE SCREEN			
ADDITION	PRODUCT TYPE NAME PRODUCTION NUMBER USER SUPPORT ID	STORAGE-TYPE A 34QS1234567890 34QS1625345	
ADDITION — BASIC VOLUME		300GB	801
		802	803
		APPLY	CANCEL